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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,227	07/15/2003	David L. Zenker	KCC 4975 (K-C 19,019)	8513

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SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
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EXAMINER	
MATZEK, MATTHEW D	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,227	ZENKER ET AL.	
	Examiner	Art Unit	
	Matthew D. Matzek	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/15/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *all*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 5, 6, and 27-30 rejected under 35 U.S.C. 102(b) as being anticipated by Cederblad et al. (US Patent 6,204,207).

2. Cederblad et al. disclose an extruded net with at least some strands, which melt away upon the application of heat while other strands maintain elastic, or other desirable properties (Abstract). It is common to laminate the net of Cederblad et al. to one or more fabric overlays to create a composite, which may be used as absorbent fabrics in disposable diapers, incontinent briefs, training pants, bandages, dressings, diaper holders and liners and feminine hygiene garments. These garments desirably include elastic portions and it is common for said composites to comprise a net that exhibits unidirectional stretch. Such a net typically includes elastic strands extending in one direction and non-elastic strands in another direction (col. 1, lines 22-33). In Figure 1 the machine direction (MD) strands are elastic and the transverse direction (TD) or cross direction (CD) strands are adhesive (col. 4, lines 11-13). Example 1 teaches a CD strand count of 7 per inch and a MD strand count of 12 per inch yielding a strand frequency ratio of about ~0.58 (CD) to 1.0 (MD) (calculation done by Examiner).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3, 4, and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederblad et al. in view of Ohnishi et al. (WO 00/37000). The invention of Cederblad et al. has been previously disclosed, however it does not explicitly state the strand frequency ratio set forth in instant claims 3 and 4 and is silent as to the specific strand diameters to be used in said invention.

4. Ohnishi et al. disclose an elastic composite member, which is elastically extensible in at least one direction formed from a fibrous material including entangled fibers (Abstract). The applied art of Ohnishi et al. may be used in a variety of disposable articles including bandages, diapers and incontinence articles (page 1, lines 12-15). Figure 1 displays an elastomeric scrim, which employs a plurality of first (MD) and second strands (CD), which intersect or cross with or without bonding to one another. The first and second strands may have a substantially circular cross-sectional shape or alternatively have cross-sections or elliptical, square, triangular shape or combinations thereof (page 8, lines 3-29).

5. In a preferred embodiment the first strands have an average cross-sectional area of from about $0.0001mm^2$ to about $0.5mm^2$ and the second strands have an average cross-sectional area $0.01mm^2$ to about $2.5mm^2$ which yields a strand diameters of ~0.011mm to 0.80mm (MD) and ~0.011mm to 1.78mm (CD) (calculations done by Examiner) (page 9, lines 10-15). The diameters of the published application meet the limitations set forth in instant claims 9-16.

6. In a preferred embodiment the scrim of the applied application the elastomeric scrim has about 5 to about 20 strands per inch in the MD and from about 3 to 15 strands per inch in the CD (page 9, lines 16-22). These strand counts in the MD and CD meet the limitations set forth in instant claims 3 and 4.

7. It would have been obvious to one of ordinary skill in the art at the time of the invention to have made the article of Cederblad et al. with the fiber ratio and fibers of Ohnishi et al. The skilled artisan would have been motivated by the desire to successfully create an absorbent fabric for use in disposable article.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederblad et al. in view of Swartz (US Patent 2,161,539). The invention of Cederblad et al. has been previously disclosed, however is silent as to the incorporation of different strand frequencies in different zones of the disclosed article.

9. Swartz discloses a baby diaper, which has greater absorptive properties in areas where such properties are most needed (col. 1, lines 1-4). The diaper of Swartz has sections 6 and 7 (Fig. 2) that are more absorptive than the rest of the article due to the warp yarns being spaced closer together (varied spacing frequency) (col. 2, lines 24-30). The diaper has end sections 3 and 4 in which both the warp and weft yarns are substantially the same size and weight (col. 2, lines 3-7).

10. It would have been obvious to one of ordinary skill in the art to have employed the teaching of Swartz, varying yarn frequency in selected areas, into the creation of the article of Cederblad et al. The skilled artisan would have been motivated by the desire to create areas of

higher absorbency based upon the usage of the article of Cederblad et al., which require areas of varying absorbency.

11. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederblad et al. in view of Sabee (US Patent 3,587,579). The invention of Cederblad et al. has been previously disclosed, however it is silent as to relationship between the MD and CD strands.

12. Sabee discloses a high tensile strength reinforcing fabric in the interior of the absorptive pad (col. 1, lines 25-30). The fabric is reinforced with an intervening web of scrim, which may be either woven or nonwoven, and is made from intersecting strands preferably bonded together where they cross (col. 2, lines 19-30). The reinforcing scrim need not be at an intermediate level of the pad (col. 2, lines 41-47). Figures 1-12 show CD strands forming peaks and valleys and the MD strands engaging the CD strands across the peaks and valleys.

13. It would have been obvious to one of ordinary skill in the art to have made the article of Cederblad et al. with strand arrangement provided for by Sabee. The skilled artisan would have been motivated by the desire to successfully create a structurally reinforced absorptive pad.

14. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cederblad et al. in view of Ducker et al. (US Patent 5,622,581). The invention of Cederblad et al. has been previously disclosed, however it is silent as to the weakening of the CD strands along their lengths to enhance buckling.

15. Ducker et al. disclose a disposable garment with de-elasticized elastic members via macerators, chemicals, selective laser beams, heat and freezing (Abstract). In the applied invention the elastic strands can be deactivated at points on the web (1) where it is desired to

reduce or to eliminate the elastic tension in the finished product (col. 3, lines 28-34 and Figure 1). The means applied to the elastic members are meant to cut or weaken the elastic (col. 4, lines 4-13).

16. It would have been obvious to one of ordinary skill in the art to have de-elasticized at least some of the CD strands of the invention of Cederblad et al. The skilled artisan would have been motivated by the desire to create an article with varying elasticity within the absorptive article in order to prevent undesired discomfort or looseness in the absorptive areas, while remaining elastic in other areas.

17. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cederblad et al. in view of Ducker et al. in further view of Schafer et al. (US PG Pub 2004/0092898). The inventions of Cederblad et al. and Ducker et al. have been previously disclosed but are silent as to the use of calcium carbonate as the chemical means by which the CD strands are de-elasticized.

18. Schafer et al. disclose a breathable absorbent thong shaped sanitary napkin or panty liner (Abstract). The applied publication teaches the incorporation of particles of calcium carbonate into a polymeric backsheet for said absorbent napkin and due to the incompatibility of the calcium carbonate and polymer cracks are formed through the layer of polymer to form micropores, which allow water vapor to permeate through the film (para 67).

19. It would have been obvious to one of ordinary skill in the art to have incorporated calcium carbonate into the strands of Ducker et al. that make up the reinforcing scrim. The skilled artisan would have been motivated by the desire to deactivate the elastic strands at points on the web via chemical means.

Claim Rejections - 35 USC § 102

20. Claims 1, 2, 5, 6, and 27-28 rejected under 35 U.S.C. 102(b) as being anticipated by Mesek et al. (US Patent 4,235,237).

21. Mesek et al. disclose an absorbent open network for use in a disposable, body-fluid absorbing article such as a disposable diaper, sanitary napkin, or the like (Abstract). Example 4 of the applied patent comprise 21 warp threads (MD) of 30/1 cotton count yarn and 11 weft threads (CD) of 38/1 cotton count yarn (col. 14, lines 35-40). This yields a strand frequency of about ~0.52 (CD) to 1.0 (MD) (calculation done by Examiner).

22. Claims 1, 2, 5, 6, and 26-28 rejected under 35 U.S.C. 102(b) as being anticipated by Quantrille et al. (US Patent 5,334,446).

23. Quantrille et al. disclose a composite elastic nonwoven fabric, which includes an elastomeric net and at least one fibrous web including binder fibers (Abstract). The disclosed invention may be used in bandaging materials, garments, diapers, supportive clothing and personal hygiene products (col. 1, lines 12-19). Differential elasticity can be provided in the fabrics of this invention (col. 2, lines 21-24). The composite elastic nonwoven fabrics of the invention include an elastomeric net and a fibrous web intimately hydroentangled together (col. 2, lines 25-27). The applied patent teaches the creation of a fabric with anisotropic stretch properties, or directionalized stretch properties by employing elastomeric strands having different stretch properties in the longitudinal (MD) and transverse (CD) directions. This includes fabrics only having longitudinal (MD) elasticity (col. 3, lines 15-27). The elastomeric net includes spaced apart MD and CD strands which intersect to form apertures. Preferably the MD and CD strands are provided in an amount such that there are between about 5 and about 30

or more strands per inch (col. 4, lines 4-17). Example 1 uses an 18x9 (strands/inch, MDxCD) fabric (col 10, lines 20-25). This yields a strand frequency of 0.50 (CD) to 1.0 (MD) (calculation done by Examiner). Example 10 uses a 25x15 (strands/inch, MDxCD) fabric (col 13, lines 32-35). This yields a strand frequency of 0.60 (CD) to 1.0 (MD) (calculation done by Examiner).

24. Claims 1, 2 and 6 rejected under 35 U.S.C. 102(b) as being anticipated by Brooks et al. (AU 458,424).

25. Brooks et al. disclose an absorbent product for absorbing and retaining body fluids, blood, and other body exudates (page 2, lines 1-3). Figure 2 of the applied invention shows a reticulate grid netting comprising intersecting rods running in one direction and rods running cross-wise to the first set of rods (page 11, lines 3-7). Sample 3 uses a 6x4 weave (MDxCD) fabric (page 25). This yields a strand frequency of 0.67 (CD) to 1.0 (MD) (calculation done by Examiner).

Claim Rejections - 35 USC § 102

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

26. Claims 1 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Melius et al. (US Patent 6,802,834).

27. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

28. Melius et al. disclose an absorbent article that constructed with a discontinuous absorbent core strengthened by a reinforcing scrim material embedded in the absorbent material of the core (Abstract). The scrim strands in the MD and CD may be made of different materials (col. 14, lines 10-14). Figure 7a displays offset removed sections (weakened points) on adjacent CD strands.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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